

**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 00000 U

Mile Post (ON)11: 0.000 mi

Bridge Name: CSG-F.85-08.23      Inspection Date: 4/12/2012      Sufficiency Rating: 84.4      Not Eligible

NBI Reporting ID:	CSG-F.85-08.23	Hist Signif 37:	5	UW Inspection Date 93B:	
Rgn/Sectn 2E/2M:	24	Posting status 41:	A	SI Date 93C:	
Trans Region 2T:	01	Service on/un 42A/B:	1 5	Bridge Cost 94:	\$ 0
County Code 3:	041	Main Mat/Desgn 43A/B:	5 02	Roadway Cost 95:	\$ 0
EL PASO		Aprr Mat/Desgn 44A/B:	0 0	Total Cost 96:	\$ 0
Place Code 4:	16000	Main Spans Unit 45:	4	Year of Cost Estimate 97:	0
COLORADO SPRINGS		Approach Spans 46:	0	Brdr Brdg Code/% 98A/B:	
Rte.(On/Under)5A:	1	Horiz Clr 47:	84.0 ft	Border Bridge Number 99:	
Signing Prefix 5B:	5	Max Span 48:	69.6 ft	Defense Highway 100:	0
Level of Service 5C:	1	Str Length 49:	288.0 ft	Parallel Structure 101:	N
Directional Suffix 5E:	0	Curb Wdth L/R 50A/B:	2.0 ft 2.0 ft	Direction of Traffic 102:	2
Feature Intersected 6:		Width Curb to Curb 51:	84.0 ft	Temporary Structure 103:	
FOUNTAIN CREEK		Width Out to Out 52:	88.0 ft	Highway System 104:	0
Facility Carried 7:		Deck Area:	25,344. sq. ft	Fed Lands Hiway 105:	0
CIMARRON STREET		Min Clr Ovr Brdg 53:	99.99	Year Reconstructed 106:	0000
Alias Str No.8A:		Min Undrclr Ref 54A:	N	Deck Type 107:	1
		Min Undrclr 54B:	0.0 ft	Wearing Surface 108A:	6
Prll Str No. 8P		Min Lat Clmce Ref R 55A:	N	Membrane 108B:	0
		Min Lat Undrclr R 55B:	0.0 ft	Deck Protection 108C:	0
Location 9:		Min Lat Undrclr L 56:	0.0 ft	Truck ADT 109:	6 %
0.1 MI E OF I-25		Deck 58:	6	Trk Net 110:	0
Max Clr 10:	328.1 ft	Super 59:	6	Pier Protection 111:	#
BaseHiway Net12:	0	Sub 60:	5	NBIS Length 112:	Y
InsinvRout 13A:	0000000000	Channel/Protection 61:	7	Scour Critical 113:	7
IrsubRout No13B:	00	Culvert 62:	N	Scour Watch 113M:	0
Latitude 16:	38d 49' 41"	Oprrng Rtg Method 63:	1 LF Load Factr	Future ADT 114:	43,983
Longitude 17:	104d 50' 03"	Operating Rating 64:	62.8	Year of Future ADT 115:	2029
Range18A:	67 W	Inv Rtg Method 65:	1	CDOT Str Type 120A:	CPG
Township18B:	14S	Inventory Rating 66:	37.7	CDOT Constr Type 120B:	27
Section18C:	13	Asph/Fill Thick 66T:	002 "in"	Inspection Indic 122A:	
Detour Length 19:	1.0 mi	Str. Evaluation 67:	5	Inspection Trip 122AA:	
Toll Facility 20:	3	Deck Geometry 68:	9	Inspection Schedule ID:	-1
Custodian 21:	4	Undrclr Vert/Hor 69:	N	Maintenance Patrol 123:	0
Owner 22:	4	Posting 70:	5	Expansion Dev/Type124:	1
Functional Class 26:	16	Waterway Adequacy 7:	8	Brdg Rail Type/Mod 125A/B:	J 0
Year Built 27:	1959	Approach Alignment 72:	8	Posting Trucks 129A/B/C:	0 0 0
Lanes on 28A:	5	Type of Work 75A:	38	Str Rating Date 130:	12/8/1996
Lanes Under 28B:	0	Work Done By 75B:	1	Special Equip 133:	
ADT 29:	18,326	Length of Improvment 76:	288.0 ft	Vert Clr N/E 134A/B/C:	-1.00 -1.00
Year of ADT 30:	2009	Insp Team Indicator 90B:	Stantec	Vert Clr S/W 135A/B/C:	-1.00 -1.00
Design Load 31:	5	Inspector Name 90C:	CIOFFREDIN	Vertical Clr Date:	
Apr Rdwy Width 32:	84.0 ft	Frequency 91:	24 months	Weight Limit Color: 134:	0
Median 33:	2	FC Frequency 92A:		Str Billing Type:	IIC
Skew 34:	15.00 °	UW Frequency 92B:		Userkey 1 - System:	OFFSYS
Structure Flared 35:	0	SI Frequency 92C:		Userkey 7-Update Indi:	
Sfty Rail 36a/b/c/d:	0 0 0 0	FC Inspection Date 93A:			
Rail ht36h:	43 "in"				

Inspector Name: CIOFFREDIN

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**Element Inspection Report**

Elm/En	Description	Units	Total Qty	% in 1	CS 1	% in 2	CS 2	% in 3	CS 3	% in 4	CS 4	% in 5	CS 5
13/1	Unp Conc Deck/AC Ovl	(SF)	25,344	0 %	0	100 %	25,344	0 %	0	0 %	0	0 %	0
109/1	P/S Conc Open Girder	(LF)	4,032	99 %	3,978	1 %	48	0 %	6	0 %	0	0 %	0
205/1	R/Conc Column	(EA)	18	22 %	4	72 %	13	6 %	1	0 %	0	0 %	0
215/1	R/Conc Abutment	(LF)	182	90 %	164	7 %	12	3 %	6	0 %	0	0 %	0
234/1	R/Conc Cap	(LF)	273	100 %	273	0 %	0	0 %	0	0 %	0	0 %	0
306/1	Asphaltic Plg Exp Jt	(LF)	273	81 %	221	19 %	52	0 %	0	0 %	0	0 %	0
311/1	Moveable Bearing	(EA)	56	86 %	48	14 %	8	0 %	0	0 %	0	0 %	0
313/1	Fixed Bearing	(EA)	56	86 %	48	14 %	8	0 %	0	0 %	0	0 %	0
325/1	Slope Prot/Berms	(EA)	2	100 %	2	0 %	0	0 %	0	0 %	0	0 %	0
326/1	Bridge Wingwalls	(EA)	4	75 %	3	25 %	1	0 %	0	0 %	0	0 %	0
334/1	Metal Rail Coated	(LF)	576	100 %	576	0 %	0	0 %	0	0 %	0	0 %	0
338/1	Conc Curbs/SW	(LF)	864	82 %	709	18 %	155	0 %	0	0 %	0	0 %	0
359/1	Soffit Smart Flag	(EA)	1	0 %	0	0 %	0	100 %	1	0 %	0	0 %	0
371/1	Traff Imp Dck SmFlag	(LF)	12	100 %	12	0 %	0	0 %	0	0 %	0	0 %	0
501/1	Channel Cond	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
502/1	ChannProtMatCond	(EA)	1	0 %	1	0 %	0	0 %	0	0 %	0	0 %	0
504/1	BankCond	(EA)	1	0 %	1	0 %	0	0 %	0	0 %	0	0 %	0
505/1	Debris Smart Flag	(EA)	1	0 %	1	0 %	0	0 %	0	0 %	0	0 %	0
520/1	AppRdAlign	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
600/1	Genl Remarks	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0

Elem/Env	Description	Element Notes
13/1	Unp Conc Deck/AC Ovl	(2) 2 sq ft pothole 10 ft from east end of deck in westbound lane near center median, patched. Deck had overlay added between 2008 and 2010 inspections - Minor ruts in wheel lines. Longitudinal cracks forming. No apparent membrane.
109/1	P/S Conc Open Girder	Moderate spalls at west end of Girder 5N with reinforcement exposed and corroded (R2). Char stains on girders near abutments. Scaling and efflorescence staining on fascia girders at bents due to drainage, some with cracking and possible delaminations.
205/1	R/Conc Column	Columns with debris walls in between - Previous moderate to heavy spalls with exposed rebar at columns 2F, 3A, 3B, 3F, 4A and 4F. Previous large cracks and spalls in columns 2A, 2B, 2C, 2E, 3C, 3E and 4B. Exposed and corroded reinforcing on downstream noses of 2F & 3F, nearly full height. All columns have been rehabbed/patched between 2008 and 2010 inspections - Light cracks and light to moderate efflorescence in all patched areas. Column 2F exhibits large cracking, delaminations and rust staining due to seepage through joint and through curb drainage. Scupper extensions are not sealed will allowing continued runoff onto super and substructure. Base of debris walls and unformed concrete exposed at P3.

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215/1	R/Conc Abutment	Previous horizontal cracks=6 ft, 3 ft, 2 ft and 6 ft at southwest, northwest, northeast and southeast corners have been patched at southeast only between 2008 and 2010 inspections - Light cracks with light efflorescence on patches. 2012 - Heavy cracking with efflorescence and rust staining at southwest below Girder N, likely due to seepage through joint above.
234/1	R/Conc Cap	Previously 25 LF of spalls with exposed reinforcement some with section loss, in Bent 2 cap, 38 LF in Bent 3 cap and 11 LF in Bent 4 cap, 32 LF of spalls, delaminations and cracks in Bent 2 cap, 12 LF in Bent 3 cap and 10 LF in Bent 4 cap at various locations throughout. Spalls and delamination under most all girder locations, approximately 2 ft length at each location. All caps have been rehabbed/patched between 2008 and 2010 inspections, all exhibits dense pattern cracks with light efflorescence in all patches.
306/1	Asphaltic Plg Exp Jt	Replaced expansion joints at bents between 2008 and 2010 inspections. Isolated areas of debonding failure, cracking. 19 ft at P4, 12 ft at P3, 21 ft at P2.
311/1	Moveable Bearing	All bearing plates have been cleaned and painted between 2008 and 2010 inspections.
313/1	Fixed Bearing	All bearing plates have been cleaned and painted between 2008 and 2010 inspections. Fascia bearings exhibit reactivating corrosion and paint failure.
325/1	Slope Prot/Berms	Concrete rubble at east abutment and riprap at west abutment. Boulder-sized riprap placed on west side of Bent 4 between 2008 and 2010 inspections.
326/1	Bridge Wingwalls	Spall at rail post connection at northeast wingwall.
334/1	Metal Rail Coated	All rail repaired and repainted between 2008 and 2010 inspections.
338/1	Conc Curbs/SW	155 LF of light spalls at curb faces and along median. East end of south curb is cracked at end post with an impending spall. 2 ft spall with reinforcement exposed on south side of median curb in span 3 (note the adjoining horizontal crack indicating corroded rebar continues). Light longitudinal and pattern cracking in top surface throughout. Areas of scaling and horizontal cracking in sidewalk face, may indicate corroding rebar and future spalling/delamination.
359/1	Soffit Smart Flag	Cracks with efflorescence under median and sidewalk area and several other locations. Char stains on soffit near both abutments. Longitudinal cracks with light spalls at several locations with exposed and corroded (R2-R3) reinforcement along edges of deck. Areas of saturation and efflorescence corresponding to the curb face. Heavy chloride staining and efflorescence full length of median. Cracking and spalling with exposed rebar and active leakage at joints over bents. Longitudinal crack throughout majority of south and locations of north soffit edge indicate corroded rebar, worse near joints.
371/1	Traff Imp Dck SmFlag	Previously missing and bent rails at south side (Date of original impact is unknown) have been repaired between 2008 and 2010 inspections.
501/1	Channel Cond	Sand, silt and rock channel.
502/1	ChannProtMatCond	Drop structures on both sides of bridge. Boulder-sized riprap added at upstream end of Bent 4.
504/1	BankCond	Trees and moderate to heavy vegetation on banks.
505/1	Debris Smart Flag	Moderate amount of debris at nose and along west side of Bent 2.
520/1	AppRdAlign	Asphalt - longitudinal cracks and rutting in left most westbound lane in east approach. Transverse crack at A5, asphalt breaking up and impending potholes in left and right lanes. Transverse crack at A1, asphalt breaking up and impending potholes in both lanes (eastbound). Curb and gutter has settled and breaking at southwest (22 ft).
600/1	Genl Remarks	Utility conduit running along south bridge rail.

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**Maintenance Activity Summary**

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
355.03	Cln & Pnt	4/12/2012	3	2014	0

Clean and paint steel tubular rail.

306.00	Railing	3/27/2008	5	2014	0
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Install adequate bridge and approach rails.

200.31	Min Repair	4/12/2012	3	2014	0
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Perform concrete repair of Column 2F, abutment at southwest and northeast, and soffit at fascias and joint below median.

353.04	Br Dk Rpr	4/12/2012	3	2014	0
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Remove asphalt, install compression seals through joints including curbs and medians, waterproof membrane (wrapped up the face of curbs and median) and repave.

156.00	Surface	4/12/2012	3	2014	0
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Seal transverse cracks at abutments, locations of debonding failure in plug joints, longitudinal cracking on bridge deck and interface of asphalt curbs and medians.

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157.00	Exp Jts	4/12/2012	3	2014	0

Clean and reseal joints in curbs and medians at piers and abutments.

353.04	Curb & RI	4/12/2012	3	2014	0
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Apply concrete sealant to median, curbs, and sidewalks. Concrete repairs may be necessary due to chloride contamination and corroded rebar.

206.01	Debri	4/12/2012	3	2014	0
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Remove debris from nose of P3.

358.03	Substr	4/12/2012	3	2014	0
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Install well graded riprap around P3.

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**Bridge Notes**

**Inspection Notes**

Date 4-12-2012 -  
Temp: 57 Degrees Time: 10:15 AM Weather: Clear

**Scope:**

NBI:  Element:  Underwater:  Fracture Critical:  Other: Type: Regular NBI

**Team Leader Inspection Check-off:**

- FCM's
- Posting Signs
- Essential Repair Verification
- Vertical Clearance
- Stream Bed Profile

**Inspection Team:**

Inspection Date: 04/12/2012

Inspector: CIOFFREDIN

Inspector (Team Leader)

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